

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

**Listing of Claims:**

1. - 8. (Canceled)

9. (Currently Amended) An emission control system for treating exhaust gas comprising NO<sub>x</sub>, hydrocarbons, and carbon monoxide produced by a lean burn engine, wherein the exhaust gas which flows upstream to downstream through the emission control system, which system comprising:

- (a) a lean NO<sub>x</sub> catalyst comprising a lean NO<sub>x</sub> catalyst platinum group metal (PGM) for reducing NO<sub>x</sub> to N<sub>2</sub> wherein the lean NO<sub>x</sub> catalyst PGM consists of platinum; and
- (b) an oxidation catalyst comprising an oxidation catalyst platinum group metal (PGM) for oxidizing hydrocarbons and carbon monoxide; and
- (c) means for injecting hydrocarbon fuel into the exhaust upstream of the lean NO<sub>x</sub> catalyst,

wherein the lean NO<sub>x</sub> catalyst is disposed upstream of the oxidation catalyst and wherein the platinum is present in the lean NO<sub>x</sub> catalyst at a loading of  $\leq 30\text{g/ft}^3$ .

10. (Previously Presented) A system according to claim 9, wherein the lean NO<sub>x</sub> catalyst has an activity sufficient to provide a ratio of % NO<sub>x</sub> conversion to % hydrocarbon conversion of at least 0.2 as measured at a temperature of 230°C, a space velocity of 25000hr<sup>-1</sup> and a hydrocarbon:NO<sub>x</sub> input ratio of 3:1 counting the hydrocarbon as equivalent propane.

11. (Previously Presented) A system according to claim 9, wherein the oxidation catalyst has an activity sufficient to provide a % hydrocarbon conversion of greater than 80% and a % carbon monoxide conversion of greater than 70% as measured at a temperature of 230°C, a

space velocity of  $25000\text{hr}^{-1}$  and a hydrocarbon:NOx input ratio of 3:1 counting the hydrocarbon as equivalent propane.

12. (Previously Presented) A system according to claim 9, wherein the lean NOx catalyst further comprises an alkaline earth metal.
13. (Previously Presented) A system according to claim 9, wherein the lean NOx catalyst further comprises an alkaline earth metal.
14. (Previously Presented) A system according to claim 9, wherein the oxidation catalyst PGM is platinum.
15. (Previously Presented) A system according to claim 9, wherein the oxidation catalyst PGM loading is about  $100\text{g/ft}^3$ .
16. (Previously Presented) A system according to claim 9, wherein the oxidation catalyst or the lean NOx catalyst further comprise alumina, a zeolite, ceria or zirconia.
17. (Previously Presented) A system according to claim 9, wherein the volume of a substrate coated with the lean NOx catalyst is at least 150% that of the oxidation catalyst.
18. (Previously Presented) A system according to claim 9, wherein the lean NOx catalyst is coated on two catalyst substrates arranged in parallel.
19. (Canceled)
20. (Canceled)
21. (Currently Amended) A process for the control of emissions from a lean-burn internal combustion engine, which process comprising:

passing exhaust gases from the engine over a lean NOx catalyst comprising a lean NOx platinum group metal (PGM) to reduce NOx to  $\text{N}_2$  wherein the lean NOx catalyst PGM consists of platinum; and

passing the product gases exiting from the lean NOx catalyst over an oxidation catalyst comprising an oxidation catalyst platinum group metal (PGM) to oxidize hydrocarbons and carbon monoxide; and

introducing additional hydrocarbon fuel into the exhaust gas before the exhaust gas contacts the lean NOx catalyst,

wherein the platinum is present in the lean NOx catalyst at a loading of  $\leq 30\text{g/ft}^3$ .

22. (Previously Presented) A process according to claim 21, wherein the lean NOx catalyst has an activity sufficient to provide a ratio of % NOx conversion to % hydrocarbon conversion of at least 0.2 as measured at a temperature of 230°C, a space velocity of 25000hr<sup>-1</sup> and a hydrocarbon:NOx input ratio of 3:1 counting the hydrocarbon as equivalent propane.

23. (Previously Presented) A process according to claim 21, wherein the oxidation catalyst has an activity sufficient to provide a % hydrocarbon conversion of greater than 80% and a % carbon monoxide conversion of greater than 70% as measured at a temperature of 230°C, a space velocity of 25000hr<sup>-1</sup> and a hydrocarbon:NOx input ratio of 3:1 counting the hydrocarbon as equivalent propane.

24. (Previously Presented) A process according to claim 21, wherein the lean NOx catalyst further comprises an alkaline earth metal.

25. (Previously Presented) A process according to claim 21, wherein the oxidation catalyst further comprises a base metal.

26. (Previously Presented) A process according to claim 21, wherein the oxidation catalyst PGM is platinum.

27. (Previously Presented) A process according to claim 21, wherein the oxidation catalyst PGM loading is about 100g/ft<sup>3</sup>.

28. (Previously Presented) A process according to claim 21, wherein the oxidation catalyst or the lean NOx catalyst further comprises alumina, a zeolite, ceria or zirconia.

29. (Currently Amended) A process according to claim 21, wherein the exhaust gases are passed over the lean NOx catalyst-system at a space velocity below  $40000\text{hr}^{-1}$ .
30. (Currently Amended) A process according to claim 21, wherein the product gases are passed over the oxidation catalyst at a space velocity of  $40000\text{-}80000\text{hr}^{-1}$ .
31. (Previously Presented) A process according to claim 21, wherein the volume of a substrate coated with the lean NOx catalyst is at least 150% that of the oxidation catalyst.
32. (Previously Presented) A process according to claim 21, wherein the lean NOx catalyst is coated on two catalyst substrates arranged in parallel.
33. (Canceled)
34. (Currently Amended) A combination of a lean burn engine and an emission control system, wherein the lean burn engine produces an exhaust gas comprising NOx, hydrocarbons, and carbon monoxide and the emission control system treats the exhaust gas which flows upstream to downstream through the emission control system, said emission control system comprising:
- (a) a lean NOx catalyst comprising a lean NOx catalyst platinum group metal (PGM) for reducing NOx to  $\text{N}_2$  wherein the lean NOx catalyst PGM consists of platinum; and
  - (b) an oxidation catalyst comprising an oxidation catalyst platinum group metal (PGM) for oxidizing hydrocarbons and carbon monoxide; and
  - (c) means for injecting hydrocarbon fuel into the exhaust upstream of the lean NOx catalyst,

wherein the lean NOx catalyst is disposed upstream of the oxidation catalyst and wherein the platinum is present in the lean NOx catalyst at a loading of  $\leq 30\text{g/ft}^3$ .

35. (Previously Presented) The combination of claim 34, wherein the engine is a diesel engine, a lean burn gasoline engine or a direct injection gasoline engine.